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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,640	01/18/2001	Glenn G. Amatucci	1380-US	8661
7590	10/06/2003			
Vincent Smeraglia, Esq. Rutgers University ASB III, 3 Rutgers Plaza New Brunswick, NJ 08901				
			EXAMINER TUGBANG, ANTHONY D	
			ART UNIT 3729	PAPER NUMBER

DATE MAILED: 10/06/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/764,640

Applicant(s)

AMATUCCI, GLENN G.

Examiner

A. Dexter Tugbang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-14, 16 and 17 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The applicant's amendment filed 7/11/03 (Paper No. 11) has been fully considered and made of record.

Specification

2. The abstract of the disclosure is objected to because the abstract is not directed to the claimed invention, i.e. method. Correction is required. See MPEP § 608.01(b).
3. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.**

Extensive mechanical and design details of apparatus should not be given.

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

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The following title is suggested: A Process of Making a Carbon Fabric Supercapacitor Structure.

Claim Objections

5. Claim 15 is objected to because of the following informalities: the phrase of "its melting point range" (lines 3-4) would be more favorably considered if it were to be replaced and recited as --a melting point range of the polyethylene fabric--.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 9-14, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsai et al 5,711,988 in view of Halliop 5,649,982.

Tsai discloses a method of making a supercapacitor comprising: laminating an activated carbon coated material to an electrically conductive positive current collector foil to produce a porous positive electrode subassembly 111A (in Fig. 3) and laminating an activated carbon coated material to an electrically conductive negative current collector foil to produce a porous negative electrode subassembly 111B (see col. 7, lines 13-20 and col. 12, lines 43-46); disposing a porous separator membrane 125, 127 between the carbon coated surfaces of the electrode subassemblies; heating the assembly under pressure to form a porous laminated assembly (see

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col. 16, lines 37+); and contacting the porous laminated assembly with a non-aqueous electrolyte solution (see col. 17, lines 5-10). The electrode subassemblies 111A, 111B can either be said to positive or negative, because each is charged with positive and negative collector foils (see col. 10, lines 16-28).

Regarding Claim 12, Tsai show calendar rolling in Figure 10.

Regarding Claims 16 and 17, the porous metal grid of the collector foils can be made of either copper (see col. 5, line 55) or aluminum (see col. 3, lines 5-6).

Regarding Claims 9, 12, 13, 16 and 17, Tsai teaches substantially all of the limitations of the claimed manufacturing method except that Tsai appears to not mention that the carbon coated materials in both the positive and negative electrode subassemblies are each of a fabric, such that material can be said to be a "carbon fabric".

Halliop teaches forming electrode subassemblies 18 (in Fig. 1) than includes carbon fibers (see col. 2, lines 27+) for the advantages of saving manufacturing time and costs of the supercapacitor (see col. 1, lines 40-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the carbon coated surface materials of Tsai by including the carbon fabric in each of the electrode subassemblies, as taught by Halliop, to advantageously save manufacturing time and costs.

With regards to Claims 10, 11 and 14, the temperature and pressure ranges and material of the separator membrane are all considered to be effective variables required for the manufacture of the supercapacitor and it would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the specific recited temperature and

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pressure ranges as well as the material of the separator membrane, since it has been held that discovering optimum values of result effective variables involve only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Furthermore, the specific recited temperature and pressure ranges and material of the separator membrane do not provide any manipulative difference in the manufacturing method as compared to the prior art above.

Response to Arguments

8. Applicant's arguments with respect to claims 9-17 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

9. Claim 15 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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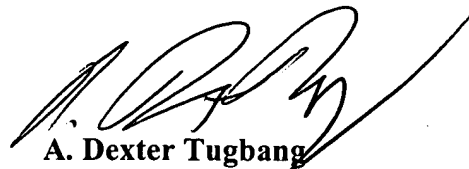
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 703-308-7599.

The examiner can normally be reached on Monday - Friday 7:00 am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 703-308-1789. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.



A. Dexter Tugbang
Primary Examiner
Art Unit 3729

October 1, 2003